

## ABSTRACT

A disk drive has timing marks (TMs) on the disk, that are chosen to reduce the probability of misidentification of a TM in the presence of read errors. The disk drive  
5 searches for TMs within a fixed TM search window which extends past the TM on the disk. A TM preferably maximizes the post-shift sliding distance for  $m$  post-shifts of the TM pattern, where  $m$  corresponds to the TM search window boundary. In this manner, the probability of a  
10 misidentification of the TM due to a post-shift having a small distance from the TM pattern is reduced. The TM pattern also provides pre-shift error resistance.